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10/034,788	12/27/2001	Curtis E. Farrell	0437-A-269	1351

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EXAMINER
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FOX, CHARLES A

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**GROUP 3600**

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/034,788  
Filing Date: December 27, 2001  
Appellant(s): FARRELL ET AL.

\_\_\_\_\_  
W. Daniel Swayze, Jr.  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed September 29, 2004(1) ***Real Party in  
Interest***

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A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The appellant's statement of the issues in the brief is correct.

**(8) *Claims Appealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) *Prior Art of Record***

5,730,575	Nichols et al.	3-1998
5,735,662	Nichols et al.	4-1998
US2002/0098067	De Luna, Jr. et al.	7-2002

**(10) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3,5-10,12,14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nichols et al. in view of Nichols et al. In regards to claims 3 and 8 Nichols et al. US 5,730,575 (herein Nichols '575) teaches a device for transferring wafers between cassettes comprising:

a support structure (14) for supporting 2 wafer cassettes;

a first registration feature (20) located in a fixed relationship to said support structure, and a second registration feature (22) located in a fixed relationship to said support structure;

wherein said first and second registration features can be of a plurality of different sizes;

a carriage mechanism (44) supported by and movable along a track mechanism (46,48) that is supported in a fixed manner relative to the support structure;

a first pushing member (34) for moving wafers from a first cassette to a second cassette. Nichols '575 does not teach a second wafer pushing member. Nichols et al. US 5,735,662 (herein Nichols 2) teaches a device for moving wafers from a cassette to a holding area and back to the cassette wherein the device has a first pushing mechanism (62) for moving the wafers in a first direction and a second pushing mechanism for pushing the wafers in a direction opposite said first direction and first and second elongated slots in a support structure(46) through which the first and second pushing members extend upwards. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide a second pushing mechanism as taught by Nichols 2 to the device taught by Nichols '575 in order to allow the device to operate in either direction without having to move the first and second wafers cassettes from one position to the other.

In regards to claim 5 Nichols 2 also teaches the device being made of a plastic material.

In regards to claim 6 Nichols '575 further teaches the track members are comprised of guide rods (46,48) that are cylindrical and parallel to said support structure and each other.

In regards to claim 7 Nichols '575 also teaches that the carriage has two holes through which the guide rods move to allow bi-directional movement of said carriage.

In regards to claim 9 Nichols 2 further teaches the first and second pushing members are mounted on a push/pull rod (80) that extends through a carriage (82) to which it is fixed.

In regards to claim 10 Nichols 2 also teaches that each of the pushing members comprises:

- a lower vertical portion connected to said center rod (80);
- a horizontal portion with a first end connected to said lower vertical portion;
- an upper vertical portion connected to a second end of said horizontal portion;
- wherein the 3 portions are of unitary construction.

In regards to claim 12 Nichols '575 also teaches the device as having 4 support legs (71-74) and that each of the track members is supported by two of said leg members.

In regards to claim 14 Nichols '575 teaches a method of moving wafers from one cassette to another comprising the steps of:

- supporting a first wafer cassette adjacent to and in alignment with a second cassette, one of said cassettes containing wafers;

- supporting a first wafer pushing member for selectively moving wafers from one cassette to the other;

- providing a plurality of different sized registration features to match those of different types of containers;

- operating a mechanism to move the wafers from the filled cassette and into the empty cassette. Nichols '575 does not teach the step of transferring the wafers with a second pushing member.

Nichols 2 teaches a method for transferring wafers comprising the steps of;

- supporting a first wafer cassette and a means for holding a plurality of wafers;

supporting a first and a second pushing member;

operating the pushing elements to move wafers from the cassette into the holding means or operating the machine in reverse to move the wafers into the cassette. It would have been obvious to one of ordinary skill in the art, at the time of invention to modify the methods taught by Nichols '575 with the methods taught by Nichols 2 in order to move the wafers from either cassette to the other without having to reposition either of the cassettes during operations.

In regards to claim 15 it would have been obvious to one of ordinary skill in the art, at the time of invention to move the device taught by Nichols '575 and Nichols 2 such that the carriage was in a central position before removing the cassettes as one of the pushing members would remain in one of the cassettes if this was not done and one of the cassettes could not be removed.

Claims 4,11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nichols '575 and Nichols 2 as applied to claim 3 above, and further in view of De Luna, Jr. et al. Nichols '575 and Nichols 2 teach the limitations of claim 3 as above, they do not teach a handle being located on the carriage. De Luna, Jr. Et al. US 2002/0098067 teaches a device for transferring wafers from a first cassette to a second cassette with a handle (46) for moving a pushing member. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide a handle as taught by De Luna, Jr. et al. on the device taught by Nichols '575 and Nichols 2 in order to allow the device to be moved in either direction from a central point by a single operator who does not have to shift positions.

In regards to claim 11 Nichols '575 further teaches an indicator plate (28) in the center of the support structure. It would have been obvious to one of ordinary skill in the art, at the time of invention to reference the center plate taught by Nichols '575 and Nichols 2 with the handle taught by De Luna, Jr. et al. to gage the relative position of the carriage in relation to the support structure.

**(11) Response to Argument**

The appellant argues that the registration feature of the cassettes (50,60) are not incompatible in the Nichols '575 reference. The examiner does not agree, Nichols '575 teaches that the cassettes to be used are of differing sizes with corresponding H-shaped registration features. These registration features are used to align the front of the cassettes such that they may be face to face for transfer of wafers from one cassette to the other. As the cassettes are of differing widths and lengths the H-shaped registration features of the larger cassette will not work on the smaller cassette. Thus the registration features of one size cassette are not compatible with a different size cassette. It is also noted that the cassette itself is used as a registration feature when abutted against element (28) in the Nichols '575 reference, such that the length of the cassette (as taken along line C) in Nichols '575 along with the positioning of the H-shaped element will be inherently different and incompatible for each of the three the different sizes of cassettes disclosed by Nichols '575.

The Nichols '662 reference teaches similar structure in regards to the cassettes and is applicable to the claims in the instant appeal for the same reasons as Nichols '575 presented above.



Appellant relies on an argument that Nichols '575 and Nichols '662 does not teach incompatible registration feature on their disclosed cassettes as the sole reason for reversing the rejection of claims 4 and 11. As these arguments are address above the examiner stands behind the previous rejection of claims 4 and 11 by the Nichols '575, Nichols '662 and the De Luna, Jr. et al. references.

It is noted by the examiner that the appellant has not claimed that the first and second registration bosses be incompatible with any registration feature of any cassette. Rather the registration features of the cassettes are claimed to be incompatible which is clearly described in the two Nichols et al. references.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Charles A. Fox  
March 1, 2005

Conferees

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